

MAY 26 2000

K000993

Page 1 of 2

## SUMMARY OF SAFETY AND EFFECTIVENESS

1. Device Name : Magnetic Resonance Imaging Accessory
2. Proprietary Name : Liberty 9000 Breast Coil
3. Classification : Class II
4. Establishment Registration #: 1529041
5. Manufacture Facility Location: USA Instruments, Inc., 1515 Danner Drive,  
Aurora, Ohio 44202, USA  
Telephone: 330-562-1000; Fax: 330-562-1422.
6. Performance Standard: No applicable performance standards have been issued  
under Section 514 of the Food, Drug and Cosmetic Act.
7. Intended Use: The Liberty 9000 Breast Coil is a receive-only RF coil,  
used for obtaining MR images of the breast and axillary  
tissue for screening and diagnostic purposes. The  
indications for use are the same as for standard MR  
Imaging. The Liberty 9000 Breast Coil is designed for use  
with the 1.5T Signa Horizon MRI scanner manufactured  
by GE Medical Systems.
8. Device Description: The Liberty 9000 Breast Coil is a phased array, receive-  
only MRI coil. The coil consists of three sections: a  
supporting base and two insulating coil chambers, one for  
each breast. Each of the hollow coil chambers houses  
two coil elements that are insulated from the patient by a  
ridged plastic housing. The coil housing is made of  
plastic materials, which are fire rated and have high  
impact and tensile strength. The Liberty 9000 Breast coil  
is designed to offer optimized imaging capabilities and  
maximum lateral access to each breast.

Please turn over

## 9. Safety and Effectiveness

Liberty 9000 Breast Coil Product Features	Comparison to predicate device or other 510(k) Cleared Products
<b>Intended Use:</b> Breast Imaging for screening and diagnostic purposes.	- Similar to GE Breast Coil manufactured by Medrad, Inc. (K923025) - Similar to OBC-300 Breast Array Coil manufactured by MRI Devices, Inc. (K993776)
<b>Indications for Use:</b> Identical to routine MRI imaging	- Similar to Premier 7000 Phased Array CTL Spine Coil manufactured by USA Instruments, Inc. (K980157)
<b>Coil Enclosure Material:</b> Polyurethane Plastic, Royalite™ R59 ABS/PVC, Fiberglass, Polycarbonate, Delrin, and PVC.	- Similar to Magna 5000 Phased Array CTL Spine Coil manufactured by USA Instruments, Inc. (K994645 and K000002)
<b>Coil Design:</b> Receive-only phased array design	- Similar to Premier 7000 Phased Array CTL Spine Coil manufactured by USA Instruments, Inc. (K980157)
<b>Decoupling:</b> RF Chokes with Switching Diodes	- Similar to Premier 7000 Phased Array CTL Spine Coil manufactured by USA Instruments, Inc. (K980157)
<b>Prevention of RF Burns:</b> Does not transmit RF power; decoupling isolates the coil elements from RF fields during RF transmission; coil elements and circuitry are enclosed in a non-conductive housing.	- Similar to Premier 7000 Phased Array CTL Spine Coil manufactured by USA Instruments, Inc. (K980157)
<b>Radio Frequency Absorption:</b> Coil is a receive only coil and does not transmit RF power; power deposition during imaging is limited by SAR algorithm	- Similar to Premier 7000 Phased Array CTL Spine Coil manufactured by USA Instruments, Inc. (K980157)
<b>Formation of Resonant Loops:</b> Decoupling isolates coil elements from RF fields during RF transmission; length of cable and stiffness does not permit looping	- Similar to Premier 7000 Phased Array CTL Spine Coil manufactured by USA Instruments, Inc. (K980157)



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration  
9200 Corporate Boulevard  
Rockville MD 20850

MAY 26 2000

Mr. Rony Thomas  
Manager, Regulatory Affairs  
USA Instruments, Inc.  
1515 Danner Drive  
Aurora, OH 44202

Re: K000993  
Liberty 9000 Breast Coil  
Dated: March 22, 2000  
Received: March 28, 2000  
Regulatory Class: II  
21 CFR §892.1000?Procode: 90 MOS

Dear Mr. Thomas:

We have reviewed your Section 510(k) notification of intent to market the device referenced above and we have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (Premarket Approval), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 895. A substantially equivalent determination assumes compliance with the Current Good Manufacturing Practice requirements, as set forth in the Quality System Regulation (QS) for Medical Devices: General regulation (21 CFR Part 820) and that, through periodic QS inspections, the Food and Drug Administration (FDA) will verify such assumptions. Failure to comply with the GMP regulation may result in regulatory action. In addition, FDA may publish further announcements concerning your device in the Federal Register. Please note: this response to your premarket notification submission does not affect any obligation you might have under sections 531 through 542 of the Act for devices under the Electronic Product Radiation Control provisions, or other Federal laws or regulations.

This letter will allow you to begin marketing your device as described in your 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801 and additionally 809.10 for in vitro diagnostic devices), please contact the Office of Compliance at (301) 594-4591. Additionally, for questions on the promotion and advertising of your device, please contact the Office of Compliance at (301) 594-4639. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR 807.97). Other general information on your responsibilities under the Act may be obtained from the Division of Small Manufacturers Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its internet address "<http://www.fda.gov/cdrh/dsma/dsmamain.html>".

Sincerely yours,

Daniel G. Schultz, M.D.  
Captain, USPHS  
Director, Division of Reproductive,  
Abdominal, and Radiological Devices  
Office of Device Evaluation  
Center for Devices and  
Radiological Health

Enclosure(s)

510(k) Number (if known): K000993

Device Name: Liberty 9000 Breast Coil

**Indications for Use:** The Liberty 9000 Breast Coil is designed to provide Magnetic Resonance Images of the breast anatomy. The Liberty 9000 Breast Coil is designed for use with the GE MR's Signa 1.5T scanner.

Anatomic Regions: Breast Anatomy  
Nuclei Excited: Hydrogen

The indications for use are the same as for standard imaging:

The Signa 1.5T system is indicated for use as an NMR device that produces images that: (1) correspond to the distribution of protons exhibiting NMR signal, (2) depend upon NMR parameters (proton density, spin lattice relaxation time T1, spin-spin relaxation time T2) and (3) display the soft tissue structure of the head and whole body. When interpreted by a trained physician, these images yield information that can be useful in the determination of a diagnosis.

(PLEASE DO NOT WRITE BELOW THIS LINE- CONTINUE ON ANOTHER PAGE IF NEEDED)

Concurrence of CDRH, Office of Device Evaluation (ODE)

Prescription Use ✓  
(Per 21 CFR 801.109)

OR

Over-The-Counter Use           
(Optional Format 1-2-96)

(Division Sign-Off)  
Division of Reproductive, Abdominal, ENT,  
and Radiological Devices

510(k) Number K000993